**Reg. No. \_\_\_\_\_\_\_\_**

**Karunya University**

**(Karunya Institute of Technology and Sciences)**

(Declared as Deemed to be University under Sec.3 of the UGC Act, 1956)

**Supplementary Examination - June 2011**

**Subject Title: OBJECT ORIENTED PROGRAMMING IN C++ Time: 3 hours**

**Subject Code: 10CA309 Maximum Marks: 100**

**Answer ALL questions (5 x 20 = 100 Marks)**

1. a. What are the characteristics of Object Oriented Programming? (8)

b. What is Structure within structure? Demonstrate the same with suitable code. (12)

(OR)

2. a. Write a program in C++ to pass structures as arguments using function. (10)

b. What is recursion? Write a program to demonstrate it. (10)

3. Discuss on the various aspects of C-Strings.

(OR)

4. What are Array of Object and Array of Structures? Explain both with relevant programs.

5. **Compulsory**:



What type of inheritance holds good for the above mentioned UML diagram? Explain the same and write a program which supports the above diagram.

6. a. Highlight on Pointers to Objects. (10)

b. Discuss on the Memory Management techniques . (10)

(OR)

7. a. Give an example of Virtual functions and its purpose. (10)

b. What is a Friend function? Explain with relevant code. (10)

8. Elaborate on the Disk File I/O with Streams.

(OR)

9. Discuss on the different issues of Exceptions in C++.